

# Information Literacy—An Emerging Global Priority

Hannelore B. Rader  
Dean, University Libraries  
University of Louisville  
Louisville, KY

*White paper prepared for UNESCO, the U.S. National Commission on Libraries and Information Science, and the National Forum on Information Literacy. See recommended bibliographic citation format at the end of the paper for use when quoting from or reproducing this paper.*

## **Abstract**

The following is a summary of current information literacy activities, programs and related research on various continents. The information is based on personal observations and literature reviews and presents a selected overview. The majority of the listed programs have been initiated in recent years, particularly in higher education and their effect and outcomes have not been assessed on a regular basis. It can be observed from this brief overview that the need for an information literate society is gaining in importance throughout the world.

## **1. INTRODUCTION**

Information literacy has been defined as a set of abilities to “recognize when information is needed and have the ability to locate, evaluate, and use needed information effectively.”<sup>i</sup> In the Information Age of the 21<sup>st</sup> century, information literate citizens will be the building stone for a society that is equitable and possesses economic growth potential. People will need information skills for the professional, personal and even their entertainment activities. Librarians, teachers, technologists and some policy makers have recently begun to address the need for information skills training and teaching on all levels of education. Training members of the existing workforce in effective information handling still needs to be addressed in a major way—hopefully very soon. All people need to be prepared for life long learning and teaching individuals appropriate information skills will be a major progression in that direction. Information literacy endeavors are just at the beginning and more work is needed to understand the complexity, long-term effects and importance of preparing people for effective information work.

In the last decade, information literacy has become a global issue and many information literacy initiatives have been documented throughout the world with particularly strong efforts and examples in North America, Australia, South Africa and Northern Europe.<sup>ii</sup> The programs, which have been documented, address many concerns relative to technology and information skills. In education teachers, librarians and others are working to integrate information skills instruction within the curricula to achieve relevant learning outcomes. Other initiatives involve distance education, research and publication activities related to information literacy. More recently, employers and policy makers have addressed the need for workforce development to ensure that workers develop appropriate technology and information skills to handle their job responsibilities effectively.

## **2. AFRICA**

### **2.1. South Africa**

The interest in information literacy has been spurred by systemic transformation of education at all levels, and the increasing adoption of information communication technology in South African society. The policy framework for information literacy in tertiary institutions is derived from three policy domains:

- Education policies
- Information Communication Technology (ICT) policies
- Library and Information Services policies

Government responses to information literacy issues vary according to their primary concerns. For example, departments such as Communications, Trade and Industry stress economic participation, citizenship, and the broad aims of the government’s agenda for

the information society. The government's awareness of the knowledge-based economy, and its desire to raise awareness of the benefits for citizens of becoming an information society has been well documented. Much emphasis has been placed by the government on the link between educational and economic development and information technology and is engaged in a number of national and global projects to promote information technology and its use. Commitment to various aspects of information literacy is apparent in many of the associated policy statements and documents. Therefore, for example, South Africa participated in the Okinawa Information Technology Charter adopted at the G8 Kyushu Summit of 2000. This represented a collaboration between the world's richest countries and a number of developing countries to help bridge the digital divide.

The government has recently launched *Info.com 2025*, the National Government Information and Communication Technology Strategy, which serves as a collective program of ICT projects designed to establish a networked information community and make South Africa globally competitive. *Info.com 2025* addresses issues of policy, infrastructure, human capacity and local content within ICT industries. One of its objectives is to facilitate and promote education and training using telecommunications technologies. The plan is to install public information terminals at main post offices, and set up community information centers ("telecenters") in towns and villages.<sup>iii</sup>

In recent years academicians and librarians have cooperated to improve the learning process for all populations and information literacy instruction has been used as part of the preparation for life long learning. For example, the Coalition of South African Library Consortia adapted user instruction as a strategic direction for the consortia in 1999.<sup>iv</sup> In South African higher education, information literacy has to be considered in relationship to situational factors that affect learning and teaching processes. These factors are based on the educational environment following the end of Apartheid, a situation where many educationally underprivileged students enter higher education without sufficient preparation.<sup>v</sup> Information skills thus should be taught in an environment centered on learners' preparation and needs using collaborations between librarians, technologists and academicians.

A noteworthy project, INFOLIT, an information literacy project launched in 1995 with support from the Reader's Digest until 2000, helped the Western Cape Librarians develop curriculum-integrated information literacy programs in academic institutions as well as schools and communities. The program utilizes needs assessment and the best information literacy practices. A credit-bearing course "Information tools and skills" was started in 1996 at the University of Cape Town and has continued ever since. INFOLIT (<http://www.adamastor.ac.za/academic/infolit>) operates within partnerships of academics and information workers to offer information literacy appropriate to the needs of learners.<sup>vi</sup>

User education and information literacy has become an area of research in the library community of South Africa. Most institutions of higher education are involved in information literacy activities and based on a current survey it was found that most academic librarians are working on integrating information skills instruction into the curricula.

At the University of South Africa (UNISA), at the University of Pretoria and at the Natal Technicon several initiatives related to information literacy have been in operation for several years. Since 1997, at UNISA, a fully integrated course on research information skills has been taught to graduate students in chemistry in the distance education environment, utilizing workshop component such as hands-on training and innovative evaluation methods.<sup>vii</sup>

An electronic survey of twenty-six South African academic institutions was completed in 2001 to assess the extent of institutional support for information literacy and existing related activities. Indications from that survey are that only one institution placed primary emphasis on “educating for life” and that there is little evidence of institutional strategic plans to integrate information literacy throughout the curricula. In most institutions, the libraries provide information skills through various courses and many attempts are made to integrate such instruction into the curricula. Concern with assessing outcomes of information literacy instruction is also growing. South African academic librarians are recognizing that information literacy instruction should be integrated into the curricula to be most effective and a sharing of experiences and best practices will be necessary.

### **3. ASIA**

#### **3.1. China**

Since the early 1980's, the Chinese government has supported and encouraged the teaching of library and information skills in academic institutions. Several national conferences have been held. Although many Chinese universities (39%) offer user instruction only a small percentage of the students enrolled in higher education are able to participate in this because the user instruction is offered through separate courses and not integrated into the curricula. As the network and technology environment in China grows the need for information skills instruction is growing as well. During the past twenty years, many articles on library user instructions have been published in Chinese journals and newspapers.

China has recently held the first National Workshop on Information Literacy for Higher Education in January 2002 at Heilongjiang University in Harbin City. More than 170 librarians from various parts of China attended the conference and much interest was expressed in working with the ACRL Information Literacy Competency Standards (<http://www.ala.org/acrl/ilcomstan.html>) to help students gain information skills. The ACRL Standards were translated into Chinese and distributed throughout the academic Chinese library community.

The information skills instruction program at Tsinghua University serves as a good model for the future. Tsinghua University, located in Beijing, is a comprehensive public research university with heavy concentration in science and technology. It is very instrumental in facilitating

national economic development. Tsinghua University includes forty-four research institutes, nine engineering centers and major national laboratories. It offers thirty-seven undergraduate, 107 masters and sixty-four doctoral programs and has an enrollment of 19,142 students. Among its 7906 staff are fifteen members of the Chinese Academy of Engineering and sixteen members of the Chinese Academy of Sciences.

Tsinghua University Library was established in 1911 and holds more than 2.5 million volumes including 300,000 clothes-bound ancient Chinese books. It is one of the nation's major libraries with its large collection and emphasis on scientific information. Seven credit courses in information literacy are taught annually to more than two thousand undergraduate and graduate students. Other courses are taught to graduate students by librarians on information and document preparation for thesis work. In addition, librarians collaborate with their academic colleagues to address information retrieval needs on campus and in distance education. The current focus is on updating the existing information retrieval courses to more intense information literacy courses using the ACRL Standards.

Utilizing national meetings of librarians and special workshops such as the one held in Harbin City in 2002 is helping academic librarians in China to follow Tsinghua University's endeavors regarding the teaching of information and technology skills. Many academic librarians are updating their information skills instruction programs to address the needs of students in the digital age by providing separate credit courses as well as a variety of modules to teach information skills.<sup>viii</sup>

### 3.2. Singapore

In Singapore the government is promoting the building of a knowledge-based society making it mandatory that people be prepared for work in the information environment, to have problem solving skills and to be information literate so they can be productive in developing the country's economy. In Singapore, information skills are taught in primary and secondary education as required by the Ministry of Education. This initiative was begun in 1987 as a pilot program and resulted in the publication of *Information Skills* in 1991. These guidelines are specifically for primary and secondary schools to help them teach students information skills. In 1996 teachers and librarians collaborated in publishing *Collaborative Projects of Library Support Groups in Primary Schools* and in 1997 another publication was issued *Information Literacy Guidelines and Information Literacy: Supplementary Materials*.

The Division of Information Studies at Nanyang Technological University investigated the information skills of undergraduate and graduate students, particularly in engineering, and discovered particular difficulties students encountered in using information effectively. This information was used to incorporate information literacy instruction into the undergraduate curriculum. The findings of the research on information literacy conducted in Singapore can be most useful for institutions in other parts of the world.<sup>ix</sup>

Beyond information literacy efforts within educational settings, advances are also being made in workplace research. A study in Singapore exploring processes employees utilize

in seeking and using information in the workplace to complete their work responsibilities found that information literacy is not an orderly and systematic process but it is creative and personal. It is different for every individual and thus should be flexible, creative and reflexive. The study involved eight auditors from different companies who were interviewed regarding their audit assignments and related information work. It was found that information seeking behavior is diverse and not always systematic and homogenous. Information literacy in the workplace is effective if it is creative and dynamic and based on critical thinking and collaboration. Information seeking behavior should incorporate complex thought processes, and mandates that individuals develop their own information seeking skills. In the work place information literacy can be developed if companies promote good communication, sharing of information seeking behavior, technology as a tool not as an end by itself and flexibility for staff.<sup>x</sup>

## **4. OCEANIA**

### **4.1. Australia**

Academic librarians in Australia have been actively pursuing the connection between lifelong learning and information literacy. They have held four successful national conferences on information literacy organized by the University of South Australia Library and the ALAIA (Australian Library and Information Association) Information Literacy Special Interest Group and published proceedings. Through their national conferences and many discussions, publications and interactions they have begun to develop strategies to help advance information literacy as a major educational issue not only within higher education but society as a whole as demonstrated by the examples below. The country's emphasis on life-long learning is leading to new partnerships between faculty and librarians to transform teaching and learning.

At the University of Ballarat information literacy is an emerging endeavor based on Boyer's four scholarships for teaching, application, integration and discovery.<sup>xi</sup> Librarians are working with faculty integrate information literacy into the curriculum, to add it to the graduate certificate requirement, and to get it endorsed by the Academic Board. Much work has been accomplished but more research is needed to assess information use by students and faculty.<sup>xii</sup>

Information literacy has been an important concern at the University of Wollongong since the 1970s. In 1989, the university introduced a computer literacy policy and a new emphasis on information literacy was initiated three years later. A Working Party on Information Literacy was established in 1995 and an Information Literacy Policy was formulated in 1997. Much has been accomplished in terms of integrating information skill teaching throughout the curriculum.<sup>xiii</sup>

Librarians at the University of South Australia have a mandate to ensure that students achieve information literacy. At the University of Technology in Sidney, students receive information skills instruction as part of their required course work. At the Queensland

University of Technology, the librarians teach an intensive, advanced course on information retrieval skills to graduate students. At Central Queensland University, the use of synchronous and asynchronous technologies has enabled librarians to provide information skills instruction via the Web to their extensive distance education students. It was found that videoconferencing constituted a valuable strategy in distance education. Computer-assisted learning programs were found to be effective for teaching database searching. Much training of staff is needed to utilize the appropriate technologies and to use the appropriate teaching and learning strategies.

More than half of Central Queensland University's student population utilize distance education since they live in remote areas. Flexible use of technology has helped to enable improved teaching in distance education and has allowed librarians to deliver information skills instruction to distance education students in a timely manner. In 1996 and 1997, the library staff began using videoconferencing to instruct distance education students how to access and use a variety of databases. The University's Teaching and Learning Management Plan has a commitment to information literacy and to teach lifelong learning skills. Librarians and faculty are working together to integrate information literacy instruction into the curriculum. A variety of instructional technology and instruction programs are utilized to teach information skills. Computer-assisted programs and videoconferencing are used successfully with distance education students. Regular evaluations have helped to improve the various teaching strategies.<sup>xiv</sup>

In addition to the progress achieved in student learning efforts, it is particularly noteworthy that Australian researchers have been leaders in documenting information literacy in workplace settings. Research is being conducted to ascertain

- the relationship between information literacy and individual learners
- the nature of knowledge, information and information literacy in different cultures
- information literacy experiences of individuals and groups
- barriers to the implementation of information literacy programs
- strategies for helping individuals and communities become information literate.<sup>xv</sup>

## **4.2. New Zealand**

New Zealand has had a national curriculum framework for information skills in compulsory education since 1993. However, teachers felt that they needed staff development to prepare them for teaching information skills. A study was conducted in 1998 to determine the specific needs of teachers in terms of preparing students for effective information use and becoming facilitators of resource-based learning. It was found that although the teaching of information skills in the schools was a requirement, it had not consistently been integrated into the curriculum. It was also found that although teachers value information skills they have little knowledge related to teaching such skills. Information literacy is not consistently supported in the schools. The study found that although policy mandates information literacy teaching in schools, in reality

implementation is difficult without appropriate professional development for teachers and collaboration with others such as librarians in primary schools.<sup>xvi</sup>

The principles of information literacy and its goals have been accepted in New Zealand and many scholars are working on increasing the understanding and use of information skills instruction throughout the country. A major component of the educational activities in New Zealand involves the development of assessment tools for information literacy outcomes.<sup>xvii</sup>

An international initiative between New Zealand and Canada compared user education objectives and practices, and the relationship between user instruction and information literacy in academic libraries. It was found that there are far more similarities than differences in the attitudes and practices of librarians responsible for user education in New Zealand and Canada. Additional research comparing information literacy initiatives and outcomes in various countries needs to be pursued.<sup>xviii</sup>

## 5. EUROPE

From 1994-1997 the European Union funded the EDUCATE (End-user Courses in Information Access through Communication Technology) project (<http://educate.lib.chalmers.se/>) involving universities from Ireland, Sweden, France, Spain and the United Kingdom under the leadership of Chalmers University.<sup>xix</sup> The collaborations within Europe resulted in two Web-based *Into Info* programs to teach information literacy in seven subject areas (architecture, chemistry, energy, electrical and electronic engineering environmental science, medicine and physics). These programs are designed for professional education and include indicative tools and full-text materials. In the future, more models are planned for other subjects. The programs are used as networked support for undergraduate and post-graduate courses on campus and in distance education. Pathfinders for the various subject areas are available for structured learning support and an access module, *Information Sources*, features explorative approaches to learn information skills.

During 1998-99 the *DEDICATE* (Distance Education Information Courses with Access Through Networks) project ([www.ariadne.ac.uk/issue17/dedicate](http://www.ariadne.ac.uk/issue17/dedicate)), funded through the European Union Telematics for Libraries Fourth Framework, developed cost-effective information skills courses for distance education involving nine European countries. The courses use a flexible learning design with networked course delivery and support. Participants rely on the *Into Info* Modules to develop information literacy courses for their own institutions. A key feature of *DEDICATE* model is the use of collaborative learning in small groups with active support of peers and tutors.

### 5.1. United Kingdom

British academic and school librarians have been actively involved in developing theories and programs related to user instruction and information literacy. The polytechnic universities and schools in particular have experimented with and set up a variety of information skills instruction programs. Among the different methodologies used have been mediated instruction packages and computer-assisted instruction modules. Information skills programs have also been focused on the open learning and adult education programs.

In 1998 SCONUL (Standing Conference of National and University Libraries) created a task force (<http://www.sconul.ac.uk/vision2005.htm>) to prepare a statement on information skills for higher education. SCONUL, founded in 1980 has 157 members. It works to improve the quality and to extend the influence of the libraries in higher education in the United Kingdom and Ireland. It has recently published its vision for academic information services in 2005.

SCONUL proposed seven sets of skills developed from a basic competence in library and information technology skills. The majority of academic librarians are engaged in some type of teaching of information skills. The SCONUL vision for 2005 stresses the development of Web portals, managed information environments and formal partnerships. It describes learning and research as a distributed model in a seamless system of local, regional, national and global resources. Finally, it predicts the role of library staff as one of advisers and trainers. SCONUL holds meetings and conferences, works on staff development, provides information and advising services, provides guidelines on learning and teaching and publishes working papers, briefing papers, statistics, guidelines, and newsletters.

A number of British universities (Cranfield University, University of Sheffield, and University College Northampton) are working with the SCONUL guidelines. Other British universities are utilizing virtual training sites ([www.vts.rdn.ac.uk](http://www.vts.rdn.ac.uk)), online modules, tutorials, distance education modules, and a variety of other modes of instruction to teach students appropriate information skills.

In addition to the collaborative efforts described above other noteworthy stand-alone initiatives are Northumbria and Cardiff Universities. An interesting research project currently conducted at Northumbria University is JUBILEE<sup>1</sup> (JISC User Behavior in Information seeking: Longitudinal Evaluation of EIS), a study of user behavior in information seeking, to predict, monitor and characterize information-seeking behavior related to electronic information services in British higher education institutions.

In 2001, Cardiff University adopted an information literacy policy. It took much cooperation among many departments to accomplish this. Librarians identified a strategic direction in harmony with the institutional mission to help integrate information skills instruction into the curriculum and to create a campus-wide information literacy policy. Cardiff University librarians offer a very extensive information skills program ([www.cf.ac.uk/infos/training/infoskills.html](http://www.cf.ac.uk/infos/training/infoskills.html)).

---

<sup>1</sup> [http://online.northumbria.ac.uk/faculties/art/information\\_studies/imri/jubilee/default.asp](http://online.northumbria.ac.uk/faculties/art/information_studies/imri/jubilee/default.asp)

Another noteworthy project is the JISC (Joint Information System Committee)-funded *Big Blue* project, which teaches information skills to students and is managed by librarians from Manchester Metropolitan University and University of Leeds ([www.leeds.ac.uk/bigblue](http://www.leeds.ac.uk/bigblue)). It provides a model of the information literate person, a tool kit and learning outcomes.

EduLib, Educational Development of Higher Education Library Staff (<http://ukoln.bath.ac.uk/services/elib/projects/edulib/>), focuses on the important role which libraries and other support staff must play in turning the use of networked information resources into an everyday part of teaching, learning and research. Librarians are identified as key agents in the provision of training to use these resources. It provides a national program for the educational development of library and information services staff. EduLib participants will acquire both the networked information skills, and the teaching skills needed to work as training and support staff in the electronic library. EduLib will develop and support regionally based consortia throughout the United Kingdom to represent the diverse higher education community. A team of development officers will establish these consortia in conjunction with the Core Team.<sup>xx</sup>

## 5.2. Scotland

The University of Glasgow has been working on the CITSCAPES Project ([www.iteu.gla.ac.uk](http://www.iteu.gla.ac.uk)) since 1999 to investigate student computer and information technology training at universities and colleges of higher education throughout the United Kingdom. Information literacy has been discussed in terms of staff development and networked learning throughout the University of Glasgow.

The Joint Information Systems Committee (JISC) (mentioned earlier in conjunction with the *Big Blue* project) has provided funding for projects related to information literacy for students in UK tertiary education. Several learning materials have been developed to help with this endeavor and to help students develop research skills (<http://edina.ac.uk/docs/index.htm>).

In addition, several Scottish universities have developed extensive information literacy programs. For example, the University of Glasgow has had an information technology literacy program ([www.iteu.gla.ac.uk/ITInfoLit.html](http://www.iteu.gla.ac.uk/ITInfoLit.html)) since 1994 and more than 5,200 students participate in it.

Other universities have also been involved in various aspects of teaching information technology skills. Robert Gordon University in Aberdeen has been involved in a study of Scottish schools to articulate core information technology skills for the 5-14 curricula in Scotland.<sup>xxi</sup>

## 5.3. Ireland

The need for information literacy activities in Ireland are emerging and several academic institutions are beginning to address such needs. In-depth interviews with twenty academic lecturers from social science faculties in five Irish universities were analyzed to assess the role of information literacy in academia. It was found that information literacy holds a relatively insignificant place in academia. More research is needed within the

academic community to eventually integrate information literacy programs within the university curricula.

Based on the need for information and communication technology training both for staff and students Queens University in Belfast established a three-year Training and Accreditation Program (TAP) in 2000, funded by the Northern Ireland Department for Employment and Learning ([www.qub.ac.uk/csv/rsg/research-inforeport/CONTENTS.htm](http://www.qub.ac.uk/csv/rsg/research-inforeport/CONTENTS.htm)).

So far, the results indicate that the program is effective for staff and staff will be ready to teach appropriate information and technology skills. However, a more appropriate approach will be explored for students utilizing lecturers for the information literacy training integrating it into their existing courses of study. Queens University hopes to ensure that all graduates have appropriate information and communication technology skills to function in a modern business environment.<sup>xxii</sup>

#### **5.4. Germany**

In the former German Democratic Republic user education for information use was a major part of education on all levels, from elementary to secondary and post secondary institutions. Library user education was a requirement and part of the general curricula during that period. In part, this requirement was related to controlling to what type of information citizens could have access since freedom of information was not an option and the government tried to control what type of information students and citizens could access. After the collapse of the Berlin wall and unification of East and West Germany this type of user education was eliminated.

Meanwhile West German academic libraries featured closed stacks and users had to request every item they wanted to have. Access to libraries was very restricted and user services were not well developed. However, in the 1990s German academic librarians began to open up their libraries to their clientele and realized that they needed to address user training based on needs expressed by users in the digital environment, online teaching and learning. Both the University of Heidelberg ([www.ub.uni-heidelberg.de/allg/schulung.htm](http://www.ub.uni-heidelberg.de/allg/schulung.htm)) and the University of Hamburg have been experimenting with courses in information literacy and online tutorials. They have also helped to found a consortium for information competencies, which serves for information exchanges among librarians related to information literacy.

The annual conference of the German library association in 2001 featured a program on information literacy for the first time. Other university libraries are likewise slowly beginning to utilize a variety of instructional models to help user gain information skills.

#### **5.5. Sweden**

Academic librarians in Sweden have been involved in user education for more than twenty years, particularly, in areas of engineering, medicine and economics. They have utilized information technology to provide more efficient instruction to beginning

students, thus freeing librarians to develop advanced electronic information skills instruction for upper-level and graduate students.

The Council for Scientific Information, NORDINFO, has as its purpose to develop Nordic cooperation within information and documentation components in research libraries. A new initiative on information literacy has just been started called the NORDINFOLIT Group ([www.nordinfo.helsinki.fi/topics/index.htm](http://www.nordinfo.helsinki.fi/topics/index.htm)) under the leadership of Christina Tovote.

During the past two decades, Chalmers University of Technology has developed comprehensive programs to train student to become information literate. The programs both for undergraduate and graduate students utilize project-based learning and have become Web-based. The *Into Info* programs described earlier have been utilized as online support for undergraduate and graduate students during the past four years.

A research study conducted in Sweden in 1993-94 investigated twenty-five high school seniors information-seeking behavior related to fact-finding, balancing information and analyzing information. It was found that information seeking is closely tied to subject content from the learner's perspective. The outcome of the study proposes that a relational approach to information literacy education would enhance the learning perspective for the individual. This would enhance diversity and individualized learning. A greater emphasis on teaching information skills would then be placed on aspects of information use rather than information searching or technology. Librarians and teachers should cooperate and observe students experience with the content of information to determine interactions with information seeking behavior and use. The relational approach for information literacy education promoted in this study should also help in measuring learning outcomes in regards to information seeking behavior.<sup>xxiii</sup>

Librarians at Malmo University, established in 1998, are working on integrating information literacy into the curriculum to meet the many diverse information needs of their students. In 1999, the first international conference, *Creating Knowledge*, was held in Malmo to address information literacy concerns. A second conference was held in 2001 and it is planned to hold a similar conference ([www.bit.mah.se/bit.nsf/index.htm?OpenForm](http://www.bit.mah.se/bit.nsf/index.htm?OpenForm)) every other year.

Plans are in process to establish a Nordic institute for information literacy. Information literacy efforts in Australia and the United States have had a substantial impact on Sweden's endeavors with information literacy instruction. An extensive list of Web sites and references has been compiled at Skovde University (<http://www.his.se/bib/enginfoit.shtml>).

## **6. NORTH AMERICA**

### **6.1. Canada**

The information policy of the Canadian government among various other information concerns promotes an information literate population. During the past three decades, academic librarians in Canada have been concerned with teaching students library and information skills. An annual national conference has been addressing information skills concerns for more than twenty-five years. Instruction librarians in academic libraries are continuing to address the challenge of integrating information skills instruction into the total curriculum. Although some progress has been made during the past five years, much more is needed compared to efforts in the United States, Australia, New Zealand and northern Europe.

A national survey of information literacy instruction in Canadian academic libraries showed that trends in teaching objectives, methods and content have not changed very much in the last five years. Few librarians record their objectives formally and most do not assess their instructional outcomes formally. Some of the findings are compared to an earlier study in New Zealand. It seems that in Canada academics place less of an emphasis on teaching information skills than in the United States. Librarians need to work more closely with teaching faculty in the elementary, secondary and higher education environments to ensure that all students become information literate.<sup>xxiv</sup>

In 1993, Canadian physicians called for a new approach to professional continuing education. The Royal College of Physicians and Surgeons of Canada established the Maintenance of Competence Program (MOCOMP) to help physicians with self-directed learning. Tools were developed to help doctors recognize when information is needed and to locate, evaluate and use information effectively. Physicians indicated that they need a tool to help manage their information needs. Eventually a software diary was developed and evaluated in 1997. The use of such a diary has also been explored in Australia, the United Kingdom, Switzerland and the United States. The diary is an interactive learning tool and enhances learner interaction and self-directed independent learning.<sup>xxv</sup>

## **6.2. Mexico**

Collaboration between librarians and faculty is a recent occurrence in Mexican academic libraries and few examples have been documented. Librarians are trying to assume the role of user information educators but they face more challenges in doing this than their counterparts in the United States and in countries with more advanced economies. Much of the population has been disadvantaged in terms of education and they lack basic literacy skills similar to citizens in other third world countries.

However, several academic librarians have begun to address the teaching of information skills to students. In these institutions, private and public, librarians are teaching students the use of electronic databases and advising them on how to acquire information skills for life-long learning. Librarians are slowly becoming involved in developing educational models for learning throughout Mexico. An excellent example of a user education program can be found at Juarez University in Ciudad Juarez. The librarians at Juarez

University provide an up-to-date electronic information environment and access to a comprehensive selection of electronic databases. The library staff is working on integrating information skills instruction into the curriculum ([www.uacj.mx/bibliotecas/default.htm](http://www.uacj.mx/bibliotecas/default.htm)). Juarez University under the leadership of Jesus Lau has also sponsored three national conferences on information literacy.

### 6.3. United States

Many of the information literacy developments in the United States are based on national collaborations. National work groups, professional organizations, and task forces have worked together for several decades to define, develop and refine the concept of information literacy. In 1989, the American Library Association's Presidential Commission on Information Literacy defined an information literate person as "one who is able to recognize when information is needed and who has the ability to locate, evaluate and effectively use the needed information."<sup>xxvi</sup>

In 1990 The National Forum on Information Literacy (NFIL) (<http://www.infolit.org>) was formed. Under the able leadership of Patricia Breivik from San Jose State University in California, the Forum is broadly based and has more than eighty-five organizational members who represent educational, business, labor and social organizations. The members are working together to promote international and national awareness of the need for information literacy and to encourage activities leading to the acquisition of information skills. The Forum pursues activities in four primary areas. Through its member organizations, the Forum examines the role of information in people's lives, work, education and social and integrates information literacy into their programs.

The Forum supports, initiates, and monitors information literacy projects both in the United States and abroad. It encourages the creation and adoption of information literacy guidelines by such regulatory bodies as State Departments of Education, Commissions on Higher Education, and Academic Governing Boards. Forum members work with teacher education programs to insure that new teachers are able to incorporate information literacy into their teaching. Currently, Australia is working on establishing a similar forum.

In 1998, the American Association of School Libraries and the Association of Educational Communications and Technology collaborated on *Information Power: Building Partnerships for Learning* including *Information literacy standards for student learning from kindergarten through high school* ([www.ala.org/aasl/ip\\_products.html](http://www.ala.org/aasl/ip_products.html)). This and related publications address the information skills standards and teaching methods for students in kindergarten through the twelfth grade. The education departments and boards the majority of the states have begun to implement these information skills standards and are beginning to measure the learning outcomes of students related these skills. These initiatives have been very successful throughout the country. The Web site gives many useful publications and examples of information skills instruction in the schools.

In 2000, the Association of College and Research Libraries issued the *Information Literacy Competency Standards for Higher Education*

([www.ala.org/acrl/il/toolkit/index.html](http://www.ala.org/acrl/il/toolkit/index.html)), which was approved by the Association of Higher Education in 2001. These standards have been translated into Spanish, Chinese and German so far. Many academic librarians in the United States are using them to build partnerships with their faculty for teaching and learning. The standards are very helpful because they indicate how to assess the progress and outcomes of information skills learning.

The Institute of Information Literacy (NILI) ([www.ala.org/acrl/nili/nilihp.html](http://www.ala.org/acrl/nili/nilihp.html)) was established in 1997 under the auspices of the Association of College and Research Libraries (ACRL). Its mission is to play a leadership role in assisting individuals and institutions in integrating information literacy throughout the educational enterprise. Its programs include an immersion program for intensive information literacy training and education, a best practices program to highlight effective information literacy programs, a community partnership program between academic, school and public libraries and provision of Web resources.

Many examples of good information literacy programs in academic institutions can be found on this ACRL Web site ([www.ala.org/acrl/il/](http://www.ala.org/acrl/il/)).

In 1971, LOEX (clearinghouse for Library Instruction) ([www.emich.edu/public/loex/loex.html](http://www.emich.edu/public/loex/loex.html)) was founded by librarians at Eastern Michigan University. To date there have been thirty annual national LOEX conferences and six LOEX-of-the-West conferences, which addressed many aspects of information literacy and library user instruction.

Many regional and state conferences on user instruction and information literacy have been held as well. More than five thousand publications related to user instruction and information literacy have been published in English since 1973, most of the in the US. Likewise there have been many articles and books published on this topic in other languages around the world. The journal *Research Strategies* was started in 1987 in Ann Arbor, Michigan, with the sole purpose to publish information literacy articles related to research and academic libraries and institutions.

On the state level in higher education Colorado, Oregon and Wisconsin have adopted the information literacy standards. Several statewide systems such as the California State University System, the State University of New York, Wisconsin and University of Massachusetts are developing system-wide initiatives. Various individual colleges and universities are implementing the standards within their curricula such as Earlham College, Florida International University, Kings College, University of Louisville, University of Texas, University of Washington and others. Many information literacy initiatives are listed on the ACRL Web site ([www.ala.org/acrl/nili/bestprac.html](http://www.ala.org/acrl/nili/bestprac.html)).

## **7. SUMMARY**

It is apparent from this brief overview that information literacy is becoming a global

priority as society moves further into the digital information environment. In developing countries such as South Africa or Mexico information literacy initiatives are helping previously uneducated populations gain important information skills in addition to basic reading, writing and mathematic education to they can become productive citizens in the 21<sup>st</sup> century. Librarians and teachers are working together in a variety of educational environments to train students in information and technology work as part of their general education and ultimately, their university education.

In developed countries in Europe, North America and Australia information literacy efforts have been documented during the past several decades through conferences, publications, new organizations, case studies, exemplary programs, Web sites, national standards and related assessment measures. Ventures between teachers and librarians are gaining success in integrating information skills instruction through out the K-12 curricula. In higher education, similar efforts are beginning to show good results in terms of improving student learning related to effective information use.

From this short overview emerges the following:

- Important research related to information literacy is being done in Australia.
- Among developing countries, South Africa and Mexico have begun several major initiatives to provide information literacy to a formerly underprivileged society.
- Important cooperative initiatives related to information literacy are being accomplished in Europe as part of the European Community, led by Sweden and the United Kingdom.
- In the United States, standards for information literacy have been developed to help librarians and educators partner in education citizens for future work in the information society.
- In Australia and the United States, assessment of information literacy has become an important goal.

Ultimately, citizens in every country will need training in effective information use in order to function productively in any type of word and social environment. Educational agencies in every country will have to become leaders in teaching and training the future work force and library and information professionals must share in this important initiative. In fact, teacher-training institutions as well as library and information schools need to update their educational programs to address the teaching of information skills in the digital environment. Teacher accreditation programs likewise need to ensure that information literacy competencies become part of the criteria for certification.

Teachers and librarians will be challenged not only by training future citizens and members of the work force for productive information work but also by the need to work with policy makers to ensure that an information literate society becomes a governmental priority. Some good examples of countries in which governmental policies reflect the importance of ensuring an information literate society are Singapore and Australia. A recent conference held in Berlin, Germany on 21<sup>st</sup> *Century Literacies* addressed the

importance of policy making and governmental support for educating citizens to be information and technology literate so they can work productively in the 21<sup>st</sup> century.<sup>xxvii</sup>

Many challenges will have to be addressed in workforce development and policy making through national and international collaboration to ensure that information literacy becomes part of policy-making in education and other governmental initiative New skills are needed in the digital work environment throughout a person's lifetime and life long learning is now a reality for everyone.

*Contact:* h.rader@louisville.edu

---

Hannelore B. Rader, " Information Literacy – An Emerging Global Priority," July 2002, White Paper prepared for UNESCO, the U.S. National Commission on Libraries and Information Science, and the National Forum on Information Literacy, for use at the Information Literacy Meeting of Experts, Prague, The Czech Republic.

Available at:

<<http://www.nclis.gov/libinter/infolitconf&meet/papers/rader-fullpaper.pdf>>

*Quoting from or reproduction of this paper is permitted when accompanied by the foregoing citation.*

---

## Endnotes

- <sup>i</sup> ACRL. 2000. *Information Literacy Competency Standards for Higher Education*. Chicago: Association of College and Research Libraries, p. 2.
- <sup>ii</sup> Bruce, C. and P. Candy. 2000. *Information Literacy around the World. Advances in Programs and Research*. Wagga Wagga, New South Wales: Charles Sturt University.
- <sup>iii</sup> De Jager, K. and M. Nassimbeni. 2002. "Institutionalizing Information Literacy in Tertiary Education: Lessons Learnt from South African Programmes." To be published in *Library Trends*, November, 2002.
- <sup>iv</sup> *ibid*
- <sup>v</sup> Sayed, Yusuf. 2000. "Socio-Economic Status and Information Literacy in South African Higher Education" in *Information Literacy around the World. Advances in Programs and Research*. Wagga Wagga, New South Wales: Charles Sturt University, pp 237-255.
- <sup>vi</sup> Karelse, C. 2000. "INFOLIT: A South African Experience of Promoting Quality Education," in *Information Literacy around the World. Advances in Programs and Research*. Wagga Wagga, New South Wales: Charles Sturt University, pp 37-50.
- <sup>vii</sup> DeJager, K. and Nassimbeni, M. "Institutionalizing Information Literacy in Tertiary Education: Lessons Learnt from South African Programs," *Library Trends* to be published Fall 2002.
- <sup>viii</sup> Ping Sun. "Information Literacy in Chinese Higher Educations," *Library Trends* to be published Fall 2002.
- <sup>ix</sup> Hepworth, M. 2000. "Developing Information Literacy Programs in Singapore" *Information Literacy around the World. Advances in Programs and Research*. Wagga Wagga, New South Wales: Charles Sturt University, pp 51-65.
- <sup>x</sup> Cheuk, B. 2000. "Exploring Information Literacy in the Workplace: A process approach," in *Information Literacy around the World. Advances in Programs and Research*. Wagga Wagga, New South Wales: Charles Sturt University, pp 178-191.
- <sup>xi</sup> Boyer, E. 1990. *Scholarship Reconsidered: Priorities of the Professoriate*. Princeton, NJ, Carnegie Foundation for the Advancement of Teaching.
- <sup>xii</sup> Radomski, N. 2000. "Framing Information Literacy: The University of Ballarat Experience," in *Information Literacy around the World. Advances in Programs and Research*. Wagga Wagga, New South Wales: Charles Sturt University, pp 67-81.

- 
- <sup>xiii</sup> Wright, L. and McGurk, C. 2000. "Integrating Information Literacy: The Wollongong Experience," in *Information Literacy around the World. Advances in Programs and Research*. Wagga Wagga, New South Wales: Charles Sturt University, pp 83-97.
- <sup>xiv</sup> Appleton, M. and Orr, D. 2000. "Meeting the Needs of Distance Education Students," in *Information Literacy around the World. Advances in Programs and Research*. Wagga Wagga, New South Wales: Charles Sturt University, 2000, pp 11-24.
- <sup>xv</sup> Bruce, C. 2000. "Information Literacy Programs and Research: An International Review." *Australian Library Journal* 49, 3, p. 21.
- <sup>xvi</sup> Moore, P. 2000. "Learning Together: Staff Development for Information Literacy Education," in *Information Literacy around the World. Advances in Programs and Research*. Wagga Wagga, New South Wales: Charles Sturt University, pp 257-270.
- <sup>xvii</sup> Brown, G. 1998. *Information Skills in the New Zealand Curriculum*. ERIC Document ED 429618.
- <sup>xviii</sup> Julien, J. 1998. "User Education in New Zealand Tertiary: An International Comparison." *Journal of Academic Librarianship*, pp 304-313.
- <sup>xix</sup> Fjallbrant, N. 2000. "The Development of Web-Based Programs to Support Information Literacy Courses," in *Information Literacy around the World. Advances in Programs and Research*. Wagga Wagga, New South Wales: Charles Sturt University, pp 27-28.
- <sup>xx</sup> Bruce, C. 2000. "Information Literacy Programs and Research: An international Review." *Australian Library Journal* 49, 3, pp 209-218.
- <sup>xxi</sup> Presentations Given at the IT & Ilit 2002 Conference held in March 2002 in Glasgow Scotland.
- <sup>xxii</sup> Ibid
- <sup>xxiii</sup> Limberg, L. "Is There a Relationship between Information Seeking and Learning Outcomes?" in *Information Literacy around the World. Advances in Programs and Research*. Wagga Wagga, New South Wales: Charles Sturt University, 2000, pp 193-207.
- <sup>xxiv</sup> Julien H. 2000. "Information Literacy Instruction in Canadian Academic Libraries: Longitudinal Trends and International Comparisons." *College and Research Libraries* 61 4, pp510-523.

---

<sup>xxv</sup> Parboosingh, J. 2000. "Tools to Assist Physicians to Manage their Information Needs," in *Information Literacy around the World. Advances in Programs and Research*. Wagga Wagga, New South Wales: Charles Sturt University, pp 121-136.

<sup>xxvi</sup> [www.ala.org/acrl.org/nili/ilit1st.html](http://www.ala.org/acrl.org/nili/ilit1st.html), Retrieved from the World Wide Web 25 September, 2002.

<sup>xxvii</sup> "21 Century Literacies Summit," Conference held in Berlin, Germany from March 6-8, 2002, sponsored by AOL Time Warner and Bertelsmann Foundations (<http://www.21stcenturyliteracy.org>).